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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,589	10/20/2003	Byung-cheol Song	Q77338	2529

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WASHINGTON, DC 20037

EXAMINER
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RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
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2621

MAIL DATE	DELIVERY MODE
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01/28/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/687,589

Applicant(s)

SONG ET AL.

Examiner

A. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed on 11/2/07 with respect to the rejection(s) of claim(s) 1-2, and 4-7 have been considered, but are not persuasive.
2. Claims 1-2, 4-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Ribas-Corbera, as was set forth in the Office Action of 7/31/07.
3. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Lin et al., (hereinafter referred to as "Lin"), as was set forth in the Office Action of 7/31/07.
4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al., (hereinafter referred to as "Lin") in view of Ribas-Corbera, as was set forth in the Office Action of 7/31/07.
5. The Applicant presents three substantive arguments contending the Examiner's pending rejections of claims 1-2, 4-5 under 35 U.S.C. 102(e) as being anticipated by Ribas-Corbera, of claim 6 under 35 U.S.C. 102(e) as being anticipated by Lin et al., (hereinafter referred to as "Lin"), and of claim 7 under 35 U.S.C. 103(a) as being unpatentable over Lin et al., (hereinafter referred to as "Lin") in view of Ribas-Corbera. However, after a careful consideration of the arguments presented, and further scrutiny of the applied the references, the Examiner must respectfully disagree for the reasons that follow.

After summarizing the current rejection (Request for Reconsideration of 11/2/07: page 7, lines 1-15) and the salient features of claim 1 (Request for Reconsideration of 11/2/07: page 7, lines 16-20; page 8, lines 1-11), the Applicant argues that Ribas-Corbera is concerned solely with CBR (constant bit rate) methods and not the claimed VBR (variable bit rate) method of the

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claims (Request for Reconsideration of 11/2/07: page 8, lines 12-13). The Examiner respectfully disagrees. In response to the applicant's arguments, the recitation "variable bit rate" has not been given patentable weight because the recitation appears in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim doesn't depend on the preamble for completeness, but, instead the process steps or structural limitations are able to stand alone, *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Furthermore, the Examiner notes that Ribas-Corbera is actually directed towards a method that is a hybrid of both CBR and VBR method, and is readily configurable to operate as a true VBR method (Ribas-Corbera: column 9, lines 25-35; column 50-65). Accordingly, the Examiner maintains that the limitation, even if it were properly supported by the current scope of the claims, is sufficiently met by the primary reference.

Secondly, the Applicants argue that the Examiner's mating of the "error bits" of Ribas-Corbera to "remaining bit amounts" for each picture is incorrect because the reference teaches of using error bits across the GOP as opposed to remaining bit amounts for each picture (Request for Reconsideration of 11/2/07: page 8, lines 14-21; page 9, lines 1-20; page 10, lines 1-16; page 11, line 1; page 12, lines 3-5)). The Examiner respectfully disagrees. There are two issues to deal with in addressing this feature. First, whether the reference's use of the term "error bits" actually reads on "remaining bit amount" as in the claim. The Examiner notes that the reference discloses the use of the term "error bits" as a difference (Ribas-Corbera: column 7, lines 45-50) of the actual bits per GOP ( $ActualB_{GOP}$ ) minus the average number of bits for the same types of GOPs ( $B_{AVG}$ ). However, since that number represents a deviation from a desired target (Ribas-Corbera:

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column 7, lines 10-25), the reference considers them to in error (i.e. the teaching desires no “remaining bit amount”). Accordingly, it is just a matter of semantics, in actuality, the “error bits” of Ribas-Corbera are an indication of a “remaining bit amount” as in the claim. Secondly, we come to the “calculating...for each picture” term of the limitation. The Examiner notes that the limitation doesn’t require a *bit amount that is picture-type specific* as argued by the Applicant (Request for Reconsideration of 11/2/07: page 9, lines 14-20; page 10, lines 1-2), only *that for each picture a remaining bit amount is* calculated. As such, the use of updating feature on a picture by picture interval over the whole GOP (Ribas-Corbera: column 7, lines 35-40) as disclosed by Ribas-Corbera still reads upon the limitation as it would allow for a *calculation of a remaining bit amount for each picture* as currently recited. Accordingly, the Examiner maintains that the limitation remains met.

Lastly, the Applicants argue that applied Lin reference fails to disclose the bit rate controller and quantization unit as in the claims (Request for Reconsideration of 11/2/07: page 11, lines 3-8) and further augments the argument with an interpretation of the Lin reference highlighting its load balancing and skipping operation (Request for Reconsideration of 11/2/07: page 11, lines 9-22; page 12, lines 1-2). The Examiner respectfully disagrees. It is noted that the use of the load balancing and skipping operations as discussed are for a maintaining a suitable bit count with desired image quality (Lin: column 2, lines 43-47), and as such the implementation of such a strategy at the macroblock level (Lin: column 4, lines 1-7) in conjunction with the quantization step (Lin: column 4, lines 15-25). Lin is careful to stress that this teaching is clearly directed towards maintain a sufficient or desired bit count on (i.e. bit rate

control) on a frame basis (Lin: column 5, lines 10-26). Accordingly, the Examiner maintains that this limitation remains met, as well.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao  
Primary Examiner  
Art Unit 2621



asr  
January 21, 2008